Replay Control

Applicants: Millard E. Sweatt, III, et al.

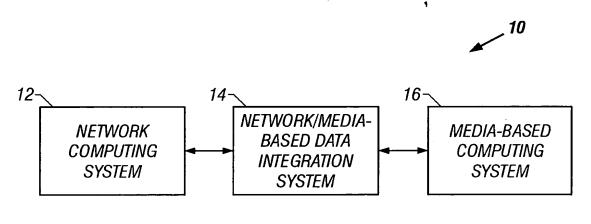


FIG. 1A

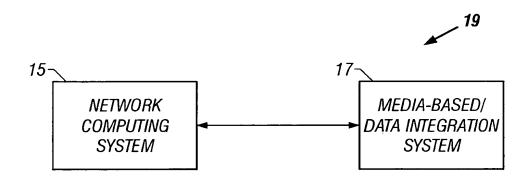
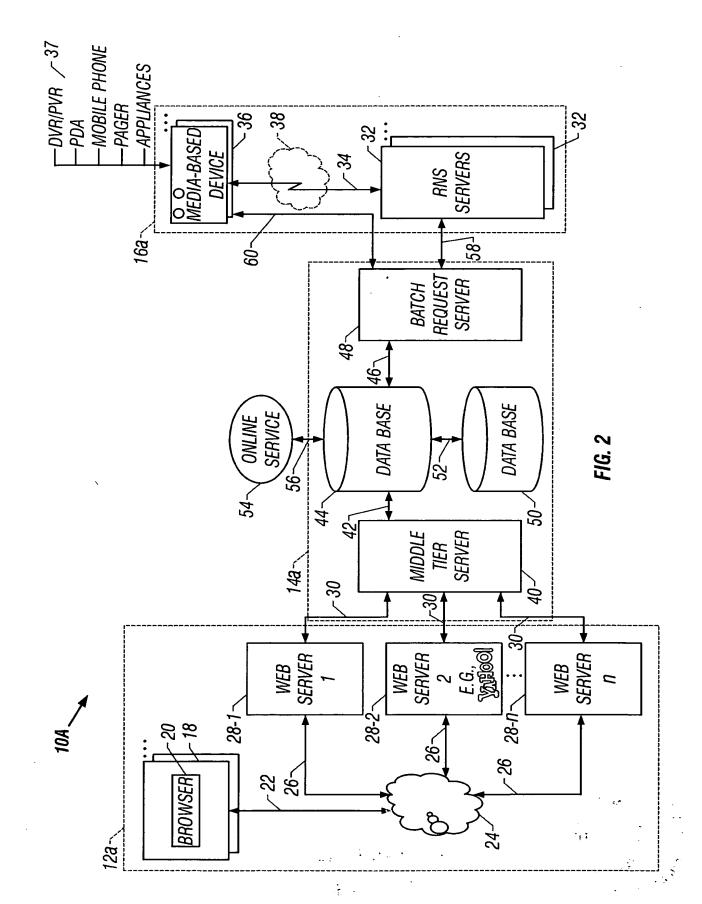


FIG. 1B

Title: Method and System for Remote Television Replay Control

3/

Applicants: Millard E. Sweatt, III, et al. Docket No.: 22407-05390 US



Replay Control

Applicants: Millard E. Sweatt, III, et al. Docket No.: 22407-05390 US

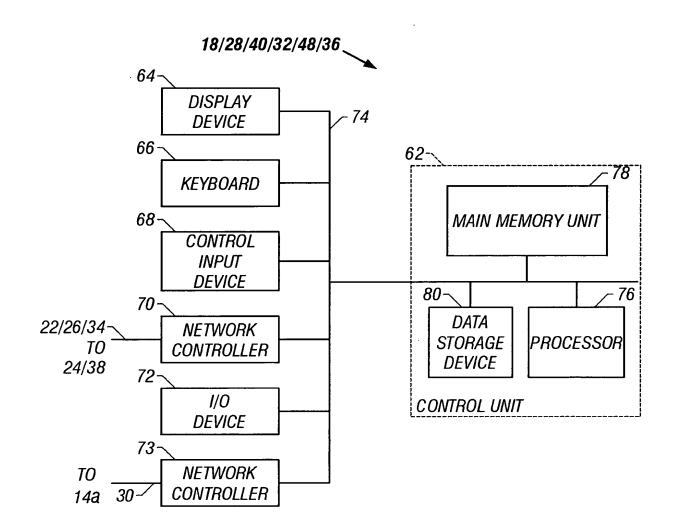


FIG. 3

Replay Control

T.

Applicants: Millard E. Sweatt, III, et al.

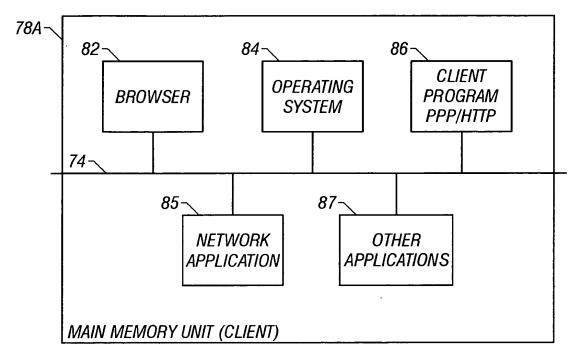


FIG. 4A

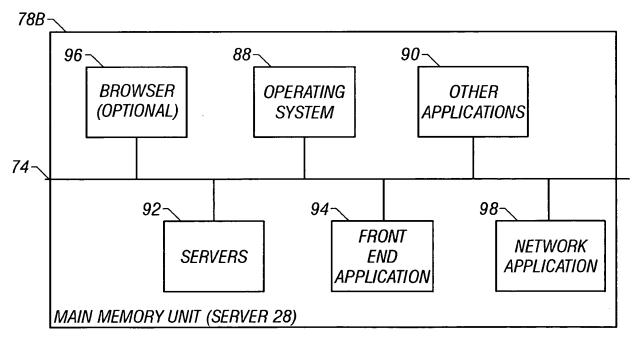


FIG. 4B

Replay Control

Applicants: Millard E. Sweatt, III, et al.

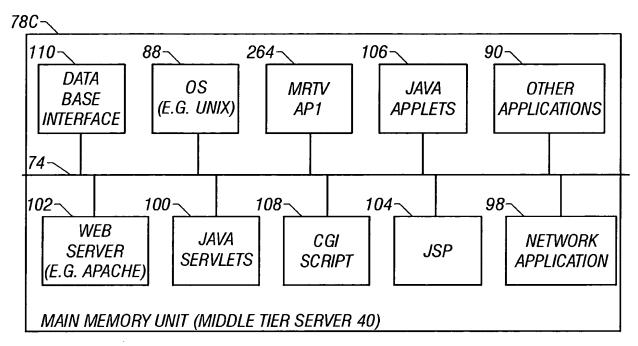


FIG. 4C

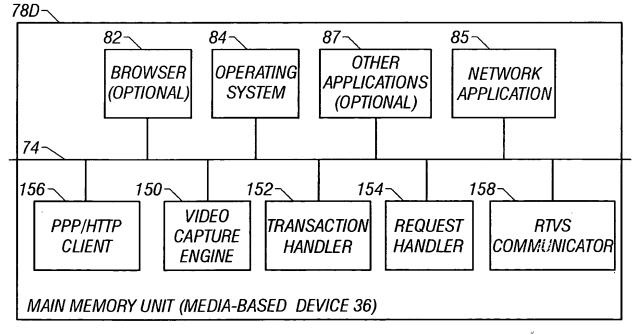
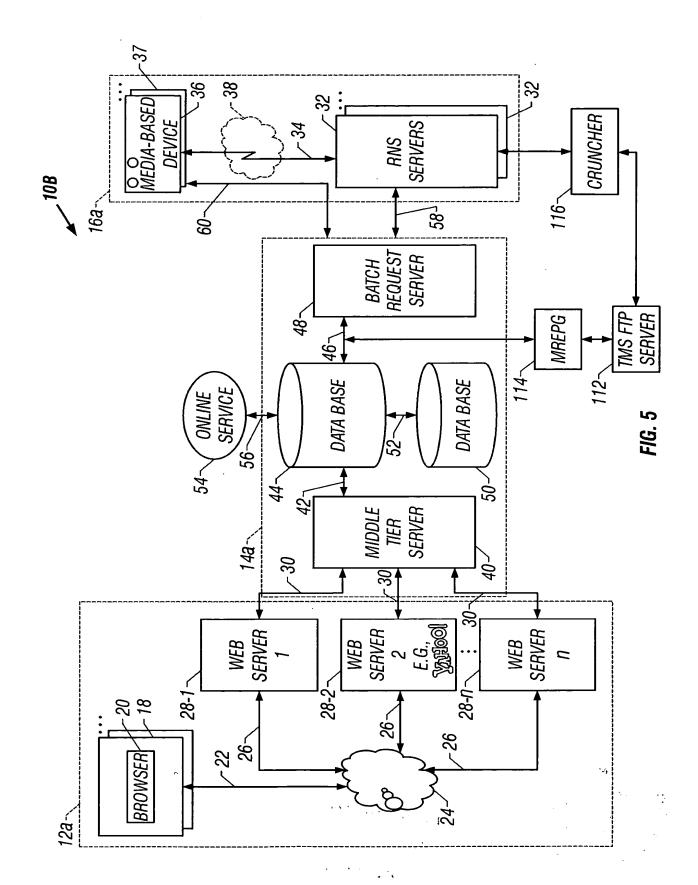


FIG. 4D

Replay Control
Applicants: Millard E. Sweatt, III, et al.
Docket No.: 22407-05390 US



Replay Control

Applicants: Millard E. Sweatt, III, et al.

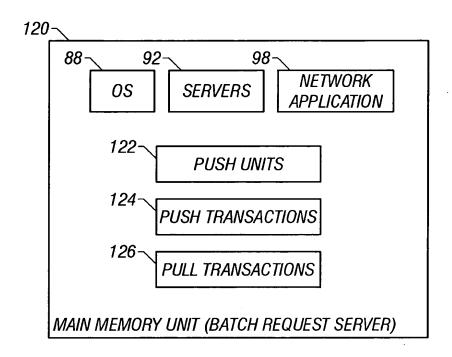


FIG. 6

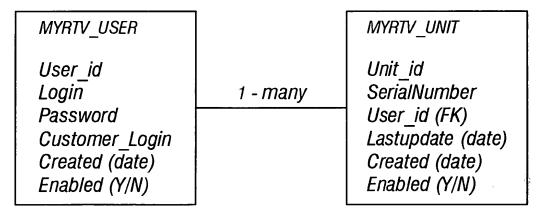


FIG. 7

Replay Control

Applicants: Millard E. Sweatt, III, et al.

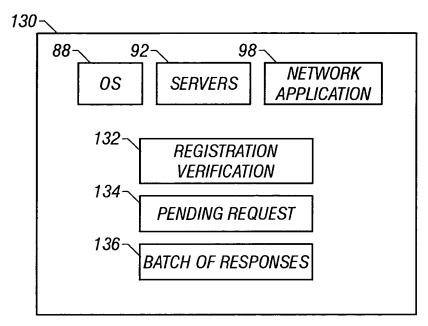


FIG. 8

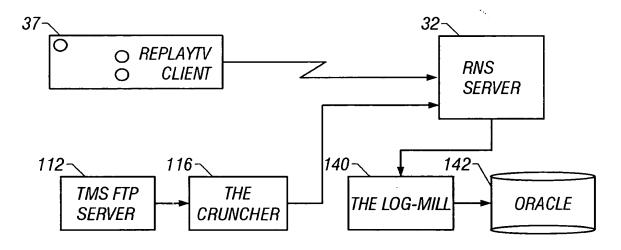
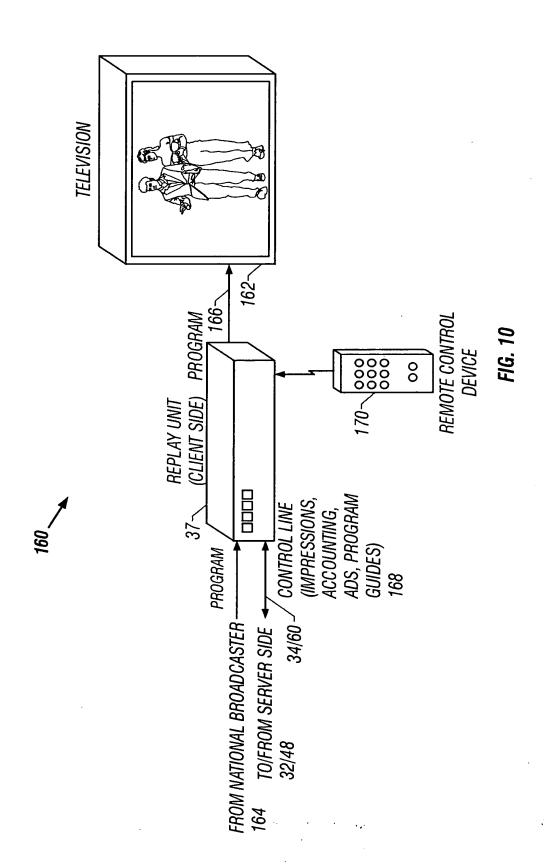


FIG. 9



Replay Control

Applicants: Millard E. Sweatt, III, et al.

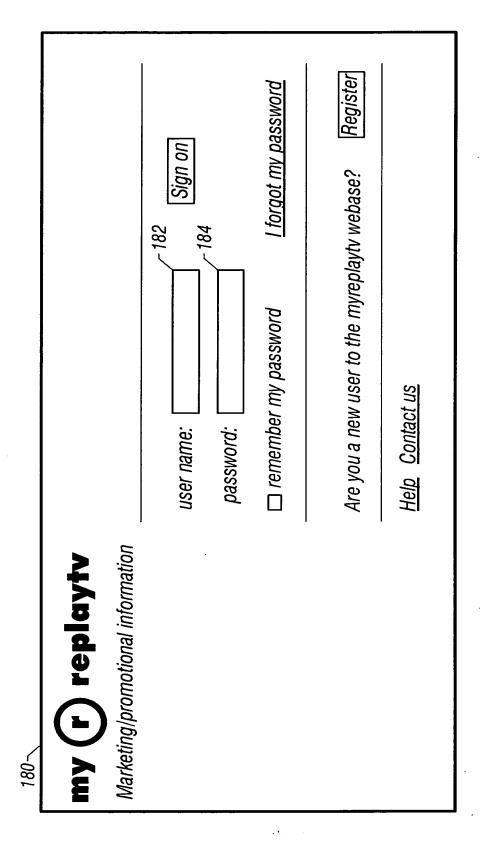


FIG. 11

Replay Control

Applicants: Millard E. Sweatt, III, et al.

Docket No.: 22407-05390 US

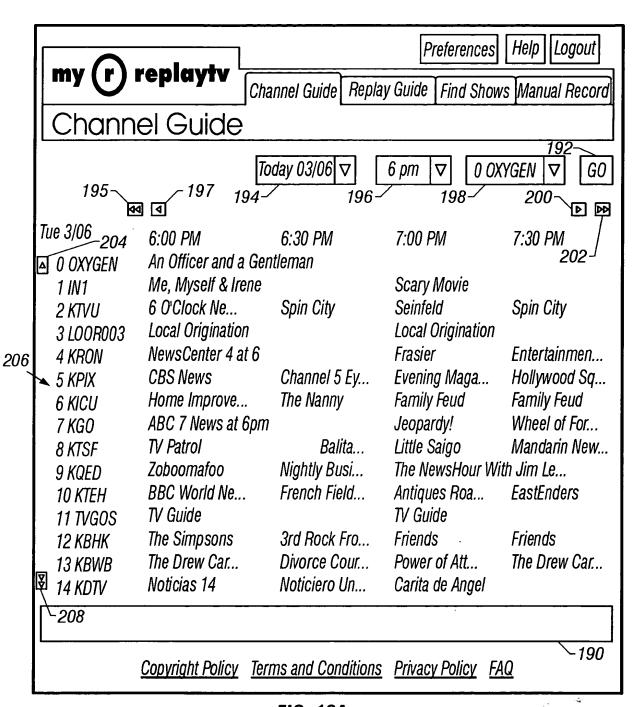


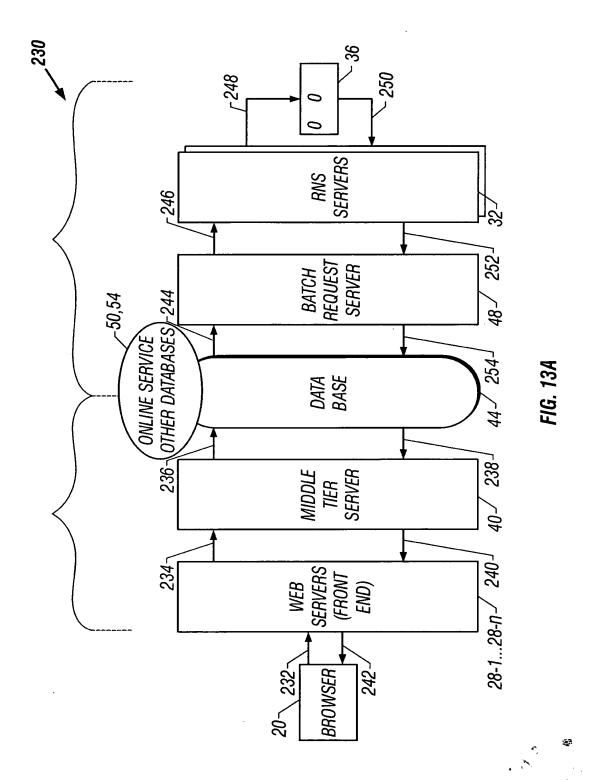
FIG. 12A

M. G. Berry

10 a 1 4 1 1 1 1

View Description	View Description	2 KTVU \triangledown	Yesterday 8/17	4 PM \triangledown 1-15	1-15 ♥
Record	Record	4 KRON	Today 8/18 ♥	5 PM	16-30
Record all episodes	Record future episodes。	5 KPIX	SAT 8/19	<i>MH</i> 9	31-45
Record + change options	Record + change options	6 FAM	SUN 8/20	Nd 2	46-60
Find all episodes	Find all episodes	7 KG0	MON 8/21	8 PM	61-75
C/ose	Why can't I record?	8 KRCB	TUE 8/22	9 PM	06-92
218~	Close	9 КОЕО	WED 8/23	10 PM	91-105
View Description	222	10 KDTV	THU 8/24	11 PM	106-120
Find all episodes		11 KICU	FRI 8/25	12 AM	121-145
Turn off recording		12 KBHK	212 214	/ t	146
Change record options		13 KBWB		216-	-9
Close		14 CNN			
220-/	7016	15 DISN			
		16 QV			

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Applicants: Millard E. Sweatt, III, et al.

Docket No.: 22407-05390 US

SEQUENCE DIAGRAM

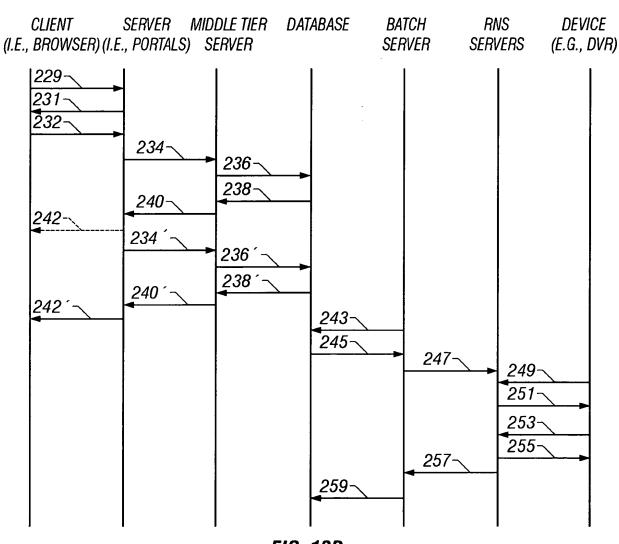


FIG. 13B

API Routine	Function
CreateAccount	Creates an account for a new user based on the information received
Login	Tries to authenticate a user based on the input username and password combination
GetProfile	Returns the profile of the user and his units based on his userid
AddRequest	Adds a request to the unit's list of pending requests based on a set of request parameters, and returns the full status of the unit and of the pending requests, including those for recording specified show(s) and deleting recorded show(s)
DeleteRequest	Delete a request from the user list of pending requests
GetReplayGuide	Returns the Replay Guide of the unit as saved in the appropriate database for the specified unit
GetChannelLineUp	Returns the channel lineup of the unit based on the unit's setting
ChangePassword	Lets the user changes his password
GetEPG	Returns the current electronic program guide for the unit based on the settings of the unit
ShowGuide	Returns detailed information about a specified show or search show details for particular shows based on criteria given as parameters

API Routine	Input Parameters	Output Files (Corresponding XML elements)
CreateAccount	firstname, lastname, address1, address2, city, state, zipcode,	ACCOUNT.XML
	serialnumber, login, password, creator	REPLAYERROR.XML
Login	login, password	ACCOUNT.XML
		REPLAYERROR.XML
GetProfile	userid	PROFILE XML (USERINFO, UNITINFO-I)
		REPLAYERROR.XML
AddRequest	userid, unitid, reqtype(none, show, theme, update)	UNITSTATUS.XML (UNITINFO, REQUESTSTATUS-I)
	<u>reqtype=show:</u> showtype(single, repeat, manual single,	REPLAYERROR.XML
	manual repeat), headendid, tmsid, device, starttimegmt, name,	·
	durationinminutes, inputsource, quality, guaranteedrecord,	SUCCESS, GENERAL FAILURE, SCHEDULEFAILURE,
1	numepisodes, weekdayflags, earlystartminutes,	ROOMFAILURE)
	showguarminutes	
	<u>reqtype=theme</u> : searchterm, searchflags, suzukiid,	•
	durationinminutes, quality, guaranteedrecord	
	reqtype=update: updatetype(deleteshow, preserveshow,	
	deletechannel), channelid, showid	
DeleteRequest	userid, unitid, requestid	DELETERESULT.XML
		replayerror.xml
GetReplayGuide	userid, unitid	GUIDE.XML (REPLAYCHANNEL-I)
		REPLAYERROR.XML
		*Note: REPLAYCHANNEL Type:=(SINGLE,
		SINGLEMANAUL, REPEAT, REPEATMANUAL, THEME,
		THEMEEXACT, ZONE)
GetChannelLineUp	userid, unitid	Channellineup.xml (Channel-I)
		REPLAYERROR.XML
ChangePassword	userid, currentpassword, newpassword	ACCOUNT.XML
		REPLAYERROR.XML
GetEPG	userid, unitid, starttimegmt, durationinminutes, startchannel,	XML file based on tyguide.dtd & typrograms.dtd
	channelcount	REPLAYERROR.XML
ShowGuide	userid, unitid, query, start, count, levelofdetail	XML file based on tyguide.dtd & typrograms.dtd
	*Note: query keywords include actor, advisory, desc,	REPLAYERROR.XML
	mpaarating, title, etc.	

Replay Control

Applicants: Millard E. Sweatt, III, et al.

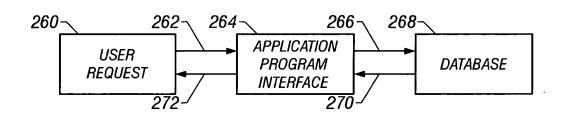
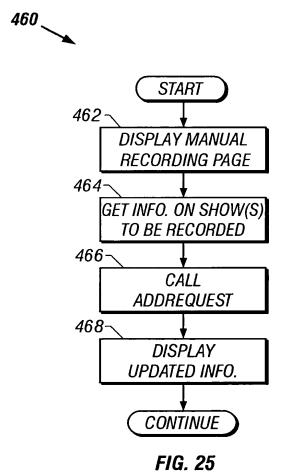


FIG. 16A



Replay Control

Applicants: Millard E. Sweatt, III, et al.

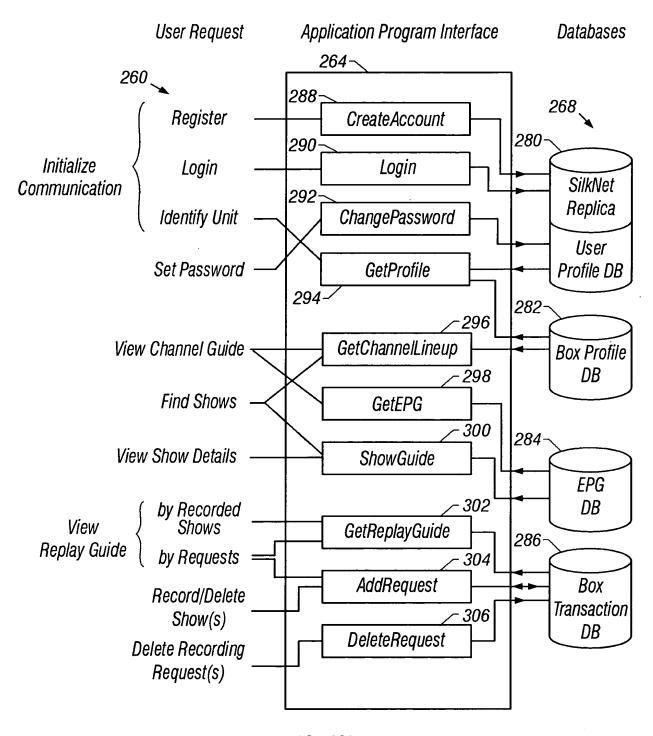
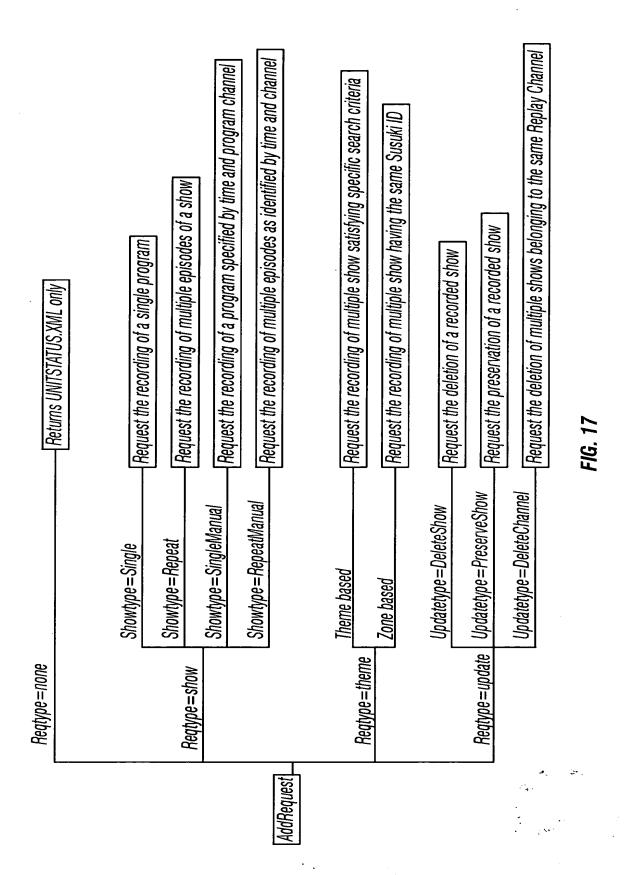


FIG. 16B

Replay Control

Applicants: Millard E. Sweatt, III, et al.



Replay Control

Applicants: Millard E. Sweatt, III, et al.

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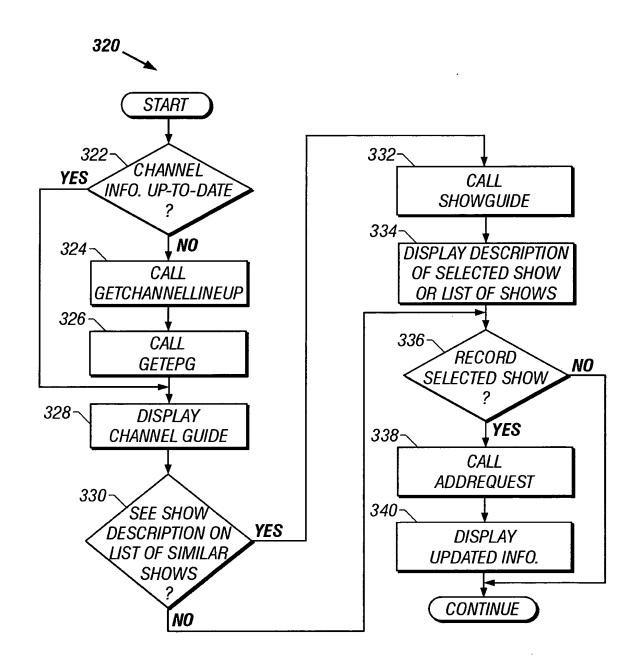


FIG. 18

tar tre

angle :	Preferences H	olo III ogouti
	17070707000	elp Logout
Channel Guide Replay G	Guide Find Shows M	lanual Record
	<u> </u>	
		-350
·	TV requests	330
	iv requesis	
Details	Status	Request
scheduled to record A Fistful of D from Channel 21 (TBS) on Sun, 02 or around 7:00AM - 9:00AM. Guaranteed at EXTENDED quality.	ollars 2/18 at	Date 02/18
scheduled to record Blown Away Channel 42(USAP) on Tue, 01/16 around 9:00PM - 11:30PM. Guar	from at or ranteed	01/16
continuously record the 1 most continuously record the 2 most	urrent ccurring Fri, Sat) on	02/28
scheduled to record Captain Janu Channel 49(AMC) on Tue, 01/09 a 3:30AM - 5:00AM. Guaranteed at	iary from at or around t EXTENDED quality.	01/09
	UICE ay Channels your one time and recurring Replay Channels Details This single record Replay channel scheduled to record A Fistful of D from Channel 21 (TBS) on Sun, O2 or around 7:00AM - 9:00AM. Guaranteed at EXTENDED quality. Nothing else is scheduled to record This single record Replay channel scheduled to record Blown Away Channel 42 (USAP) on Tue, 01/16 around 9:00PM - 11:30PM. Guar at EXTENDED quality. Nothing els scheduled to record. This show-based Replay channel continuously record the 1 most of episode(s) of Cantonese News of every (Sun, Mon, Tue, Wed, Thu, Channel 8(KTSF) at or around 8:0 Guaranteed at EXTENDED quality. This single record Replay channel scheduled to record Captain Janu Channel 49 (AMC) on Tue, 01/09 a 3:30AM - 5:00AM. Guaranteed at	Channel Guide Replay Guide Find Snows Muide Tyour one time and recurring Replay TV requests Channels Details Status This single record Replay channel was scheduled to record A Fistful of Dollars from Channel 21 (TBS) on Sun, 02/18 at or around 7:00AM - 9:00AM. Guaranteed at EXTENDED quality. Nothing else is scheduled to record. This single record Replay channel was scheduled to record Blown Away from Channel 42 (USAP) on Tue, 01/16 at or around 9:00PM - 11:30PM. Guaranteed at EXTENDED quality. Nothing else is scheduled to record. This show-based Replay channel will continuously record the 1 most current episode(s) of Cantonese News occurring every (Sun, Mon, Tue, Wed, Thu, Fri, Sat) on Channel 8 (KTSF) at or around 8:00PM - 9:00PM.

			Prefe	rences H	elp Logout
my (r) replaytv	Channel Guide Repla	ay Guide Fin	d Shows M	anual Record
Renle	ay Guide		· L	<u>\</u>	
	ows Replay Channels	 a		 	- 350
L.L '	1 ' '	ed to your Replay TV (unit		
		e Selected Channels			
Channel	Show	Date/Time	Station	Duration	Size
A Fistful of	Title/Episode □ A Fistful of Dollars	s 02/18 7:00AM	21 TBS	(2h)	6.46%
Dollars	Tribular of Bollars	<i>OL) 10 1.00/111</i>	21100	(211)	0. 10 %
Blown Away	□ Blown Away	01/16 9:00PM	42 USAP	(2h 30m)	8.07%
Captain	□ Captain January	01/09 3:30AM	49 AMC	(1h 30m)	4.84%
January	— Oaptain January	01/03 3.30AM	73 AIVIO	(111 00111)	4.0470
Firewalker	□ Firewalker	02/27 8:00PM	21 TBS	(2h)	6.46%
On Deadly Ground	□ On Deadly Ground	d 01/07 9:00PM	4 KRON	(2h)	6.46%
Platoon	□ Platoon	02/04 8:00PM	37 TNTP	(2h 30m)	8.07%
The Bridge on the River Kwai	□ The Bridge on the River Kwai	12/24 8:00AM	42 USAP	(3h 30m)	11.30%
The Little Princess	□ The Little Princess	s 12/26 4:15AM	49 AMC	(1h 45m)	5.65%
The Trouble with Harry	□ The Trouble with Harry	12/18 1:05PM	49 AMC	(1h 55m)	6.19%
Welcome to ReplayTV	□ Welcome to ReplayTV	09/08 10:49AM		(15m)	2.42%

FIG. 19B

Replay Control

Applicants: Millard E. Sweatt, III, et al.

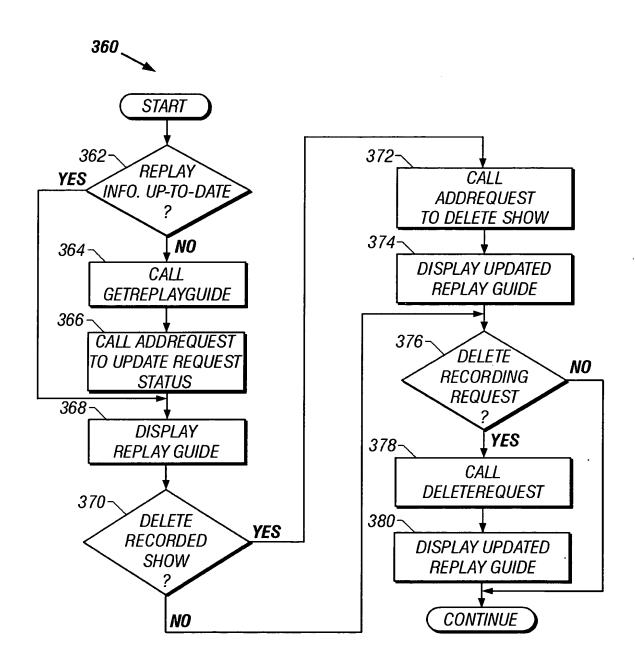


FIG. 20

Replay Control

Applicants: Millard E. Sweatt, III, et al.

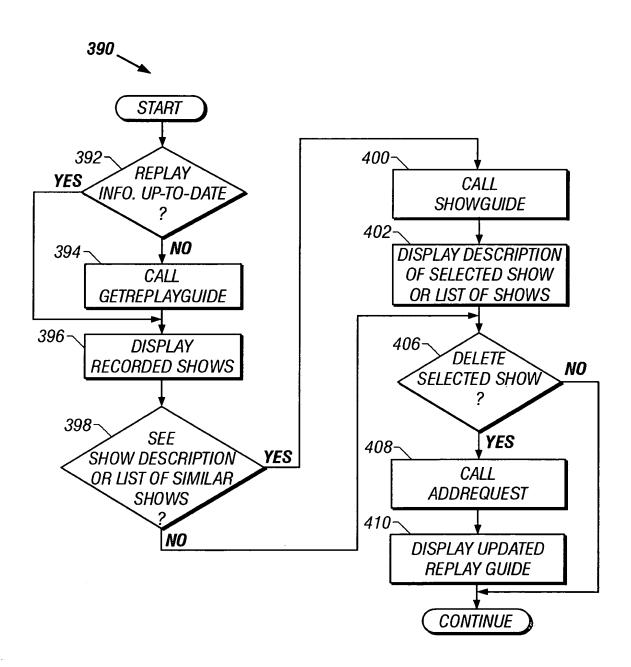


FIG. 21

<i>ـ</i> ا ا	Preferences	Help Logout
Channel Guide Replay Guide Find Shows	de Find Shows	Manual Record
Find Shows		
Find: En Show Titles Enter the word or phrase that you wish to find.	s: a Actors Directors	Find Shows
Copyright Policy Terms and Conditions Privacy Policy FAQ	rivacy Policy FAQ	

Replay Control

Applicants: Millard E. Sweatt, III, et al.

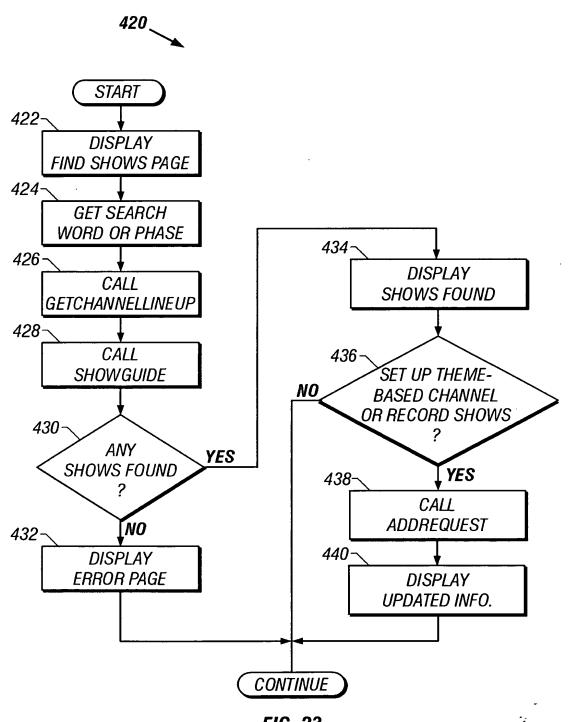


FIG. 23

Preferences	Help Logout
Channel Guide Replay Guide Find Shows Ma	Manual Record
Manual Record	
Single Recording Repeat Recording	
Start Date Mar v 7 v 2001 v	
Start Time : AM	
End Time ☐: ☐ AMI▼	
Channel 0 OXYGEN	
Quality Extended [v	
Guaranteed Yes v	
Submit Request)	450
Copyright Policy Terms and Conditions Privacy Policy FAQ	

-3

		seoue
	Channel Guide Find Shows Manual Record Replay Guide Logout	
	Manual Record	n quality
	Single Recording Repeat Recording	
	Days — Mon co Tue — Wed — Thu — Fri — Sat — Sun	
	Start Time 7:58 PMI End Time 11.02 PMI	
	Channel 4 KRON v	
	Quality Standard ∇	
	Guaranteed Yes v	
,	Submit Request	

Replay Control

Applicants: Millard E. Sweatt, III, et al.

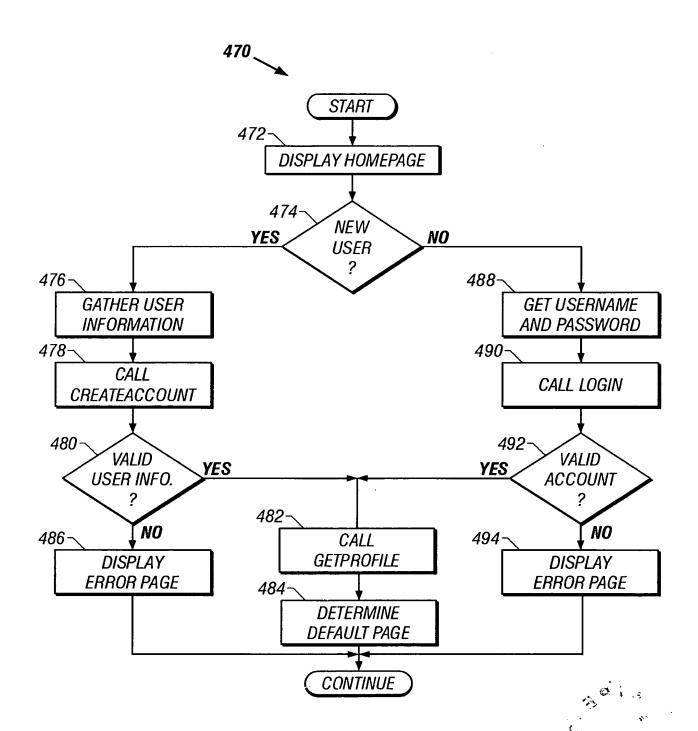


FIG. 26

Title: Method and System for Remote Television Replay Control

Applicants: Millard E. Sweatt, III, et al. Docket No.: 22407-05390 US

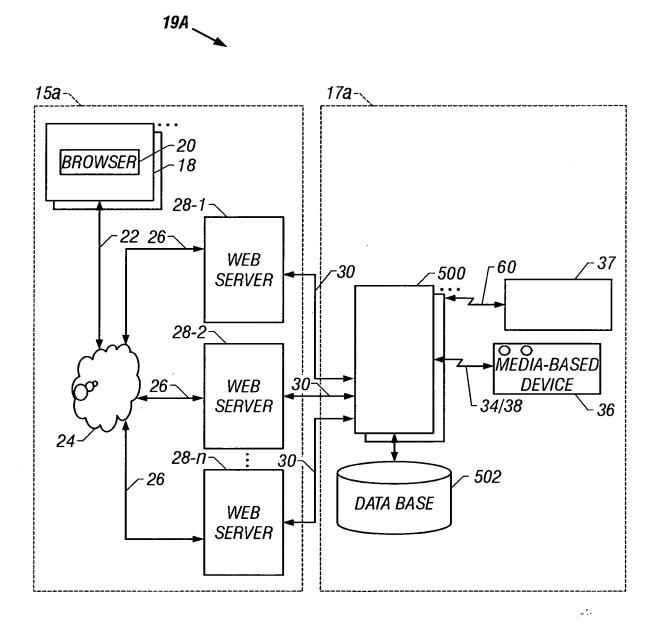
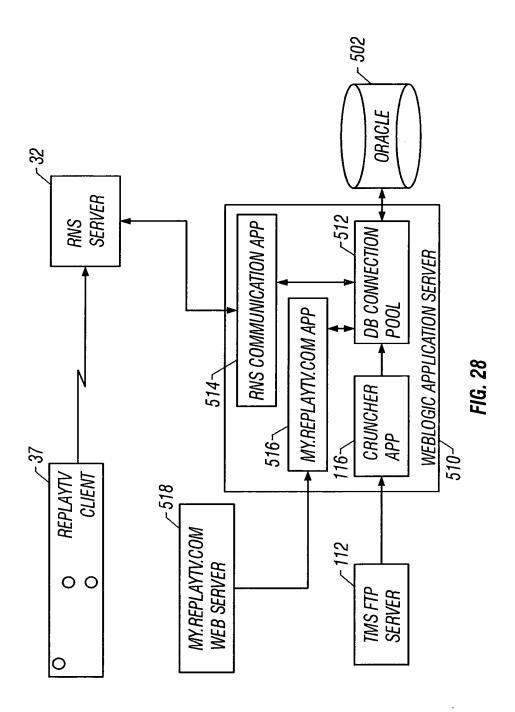
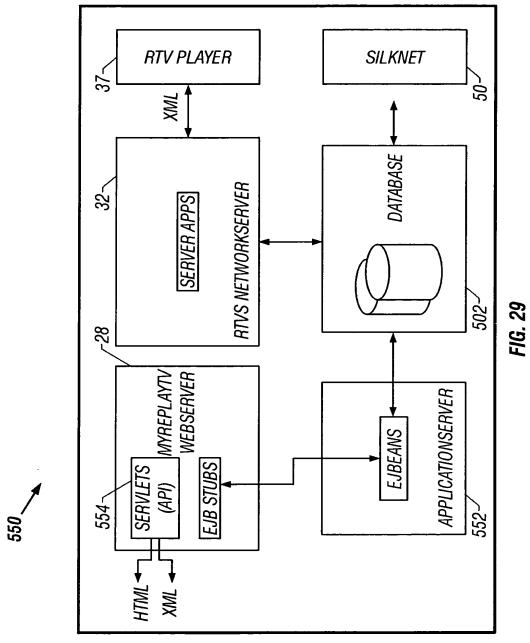


FIG. 27



Replay Control

Applicants: Millard E. Sweatt, III, et al. Docket No.: 22407-05390 US



Replay Control

Applicants: Millard E. Sweatt, III, et al.

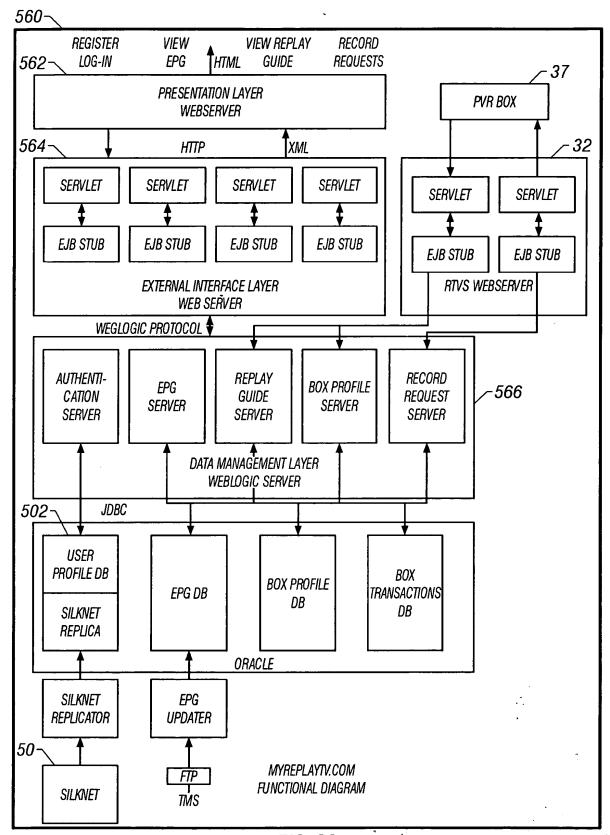


FIG. 30

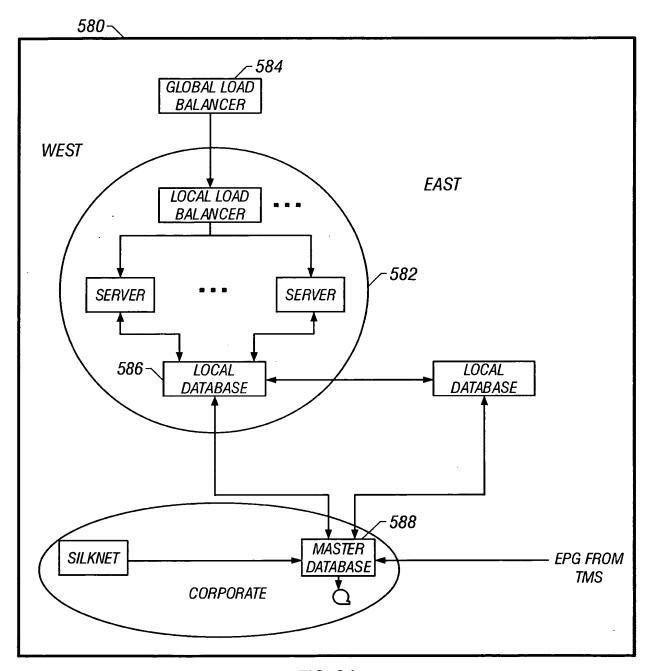


FIG. 31